

REMARKS

Claims 1-9 are all the claims pending in the application.

Claims 1-9 have been examined. Claim 1-9 are rejected under 35 U.S.C. § 112, second paragraph, and claims 1-7 are rejected under 35 U.S.C. § 103(a).

Claim Rejections - 35 U.S.C. § 112

Claim 1-9 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner has rejected claims 1-5 stating that the structure of the GaN semiconductor is not clear, and that it is not clear what functional and structural feature of the spatial filter makes it capable of eliminating stray light.

Applicant submits that the structure of the GaN semiconductor light emitting element is clearly defined. The specification with reference to Figure 2 explains an exemplary structure in detail on pages 15-17.

Further, Applicant submits that the functional and structural features of the spatial filter are clearly defined. The specification with reference to Figures 1, 3, and 4 explains the structural and functional features in detail on pages 17-20. There are details of the focusing lens 22 and the slit panel 23 in relation to the laser beam 21 and the photodetector 30. The different forms of the spatial filter are claimed in claims 2-4. For example, one form discussed in the specification is a slit panel, and it is shown that if the width of the slit panel 23a is 1mm or 0.7mm, a reduction of stray light is obtained. *See Specification: page 20, lines 8-9.* The independent claim need not

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include the features of preferred embodiments, and in this case, several structural features are described in at least dependent claims.

Claim 4 is rejected because an abbreviation (TE) is used without being previously defined. Applicant has amended claim 4 to read “transverse electric (TE).”

The Examiner has rejected claim 6 stating that it is a single step claim without recitation of what is carried out and how it is carried. Applicant submits that single step method claims are patentable. The “what” is the elimination of stray light and the “how” is by use of the spatial filter. Further, Applicant submits amended claims 6 and 7 in multiple step form as new claims 14 and 15. *See Appendix.*

Claims 8-9 are rejected because they depend on multiple dependent claim 5. Applicant has amended claim 8 to overcome this rejection. Further, Applicant has added claims 10-12 so as to provide for the protection of the subject matter as originally claimed. *See Appendix.*

Applicant submits that claims 8-9 should have been previously treated on the merits.

Claim Rejections - 35 U.S.C. § 103

Claims 1-7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Scifres et-al. (US 4,656,641). Applicant traverses this rejection.

In the present invention, with regard to the GaN type semiconductor light emitting element, it has been determined that in order to record a high image quality concentration gradation image, the intensity of the stray light must be less than or equal to 20% of the intensity of the total light outputted when the light element output is at its highest. The stray light refers, for example, to the randomly polarized light emitted from the portions of the semiconductor light emitting element other than the stripe portion of the active layer thereof.

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Claims 1 and 6 require eliminating stray light from a GaN type semiconductor, and that the stray light amounts to 20% or less of the total output of light emitted.

The Examiner argues that Scifres shows a focus optical system for eliminating stray light. *See Col. 1, lines 35-46; Col. 4, lines 9-20; Col. 8, lines 55-65.* The Examiner admits that Scifres does not disclose a GAN type semiconductor light emitting element. However, the Examiner argues that it is within the general skill of a worker in the art at the time the invention was made to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. Applicant believes that the Examiner is misapplying and/or misinterpreting Scifres.

First, the Examiner's cited sections of Scifres for the teaching of stray light, as claimed, only teach that the laser threshold is reduced by the partially reflected light supplied back to the laser optical cavity and the far field beam is stabilized, i.e. no beam shift. *See Col. 4, lines 9-21.* There is no teaching or suggestion as to stray light being the cause of the beam shift of the far field pattern. The beam shift may be caused by means other than the stray light of the present claims.

Second, the Examiner has not stated where Scifres teaches or suggests that the stray light amounts to 20% or less of the total output of light emitted. Further, Applicant does not see any teaching or suggestion as to the stray light amounting to 20% or less of the total output of light emitted.

Since Scifres does not teach or suggest the features above as claimed, claim is patentable over Scifres. Further, claims 2-5 and 7 are at least patentable by virtue of their dependencies.

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Claims 1-7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Scifres in view of Rubin et al. (US 5,657,335).

Claims 1-7 are patentable over Scifres for the reason given above. Rubin does not make up for the deficiencies of Scifres. Thus, claims 1-7 are patentable over the cited references, alone or in combination.

In addition, Applicant submits that claims 4, 5, and 7 are patentable for the reasons set forth below.

Claim 4 recites eliminating the light components other than the TE mode components. However, the Examiner has not cited to a portion of the reference that teaches or suggests this feature, and Applicant does not see any disclosure that teaches or suggests such a feature.

Claims 5 and 7 recite that the stray light is generated when the drive current is less than the laser oscillation threshold value. However, the Examiner has not cited to a portion of the references that teaches or suggests this feature, and Applicant does not see any disclosure that teaches or suggests such a feature.

New Claims

Claims 10-18 have been added for further protection of the present invention. The claims are fully supported by the specification.

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In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

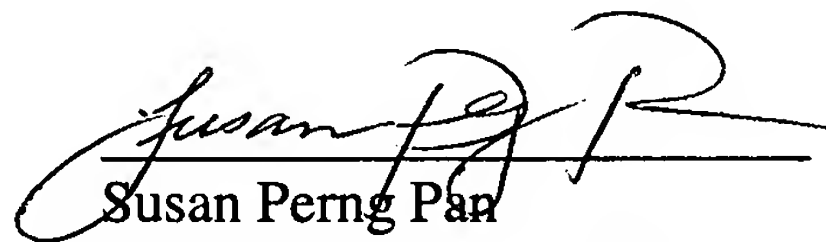
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